# (19) World Intellectual Property Organization International Bureau



# 

#### (43) International Publication Date 28 June 2001 (28.06.2001)

### **PCT**

# (10) International Publication Number WO 01/46199 A1

(51) International Patent Classification?: C07D 498/04. A61K 31/47, A61P 35/00, 43/00

PCT/US00/32443 -(21) International Application Number:

(22) International Filing Date: 11 December 2000 (11.12.2000)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data/ 60/171,373 22 December 1999 (22.12.1999) 60/226,076 17 August 2000 (17.08.2000) US 60/234,539 22 September 2000 (22.09.2000) US

(71) Applicants (for all designated States except US): ELI LILLY AND COMPANY [US/US]; Lilly Corporate Center, Indianapolis, IN 46285 (US). WANG, Qiuping [USAJS]: 8430 Harrison Parkway, Fishers, IN 46038 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): BONJOUKLIAN, Rosanne [US/US]; 318 Dominion Drive, Zionsvile, IN 46077 (US). COHEN, Jeffrey, Daniel [US/US]; 1411 Shawnee Road, Indianapolis, IN 46260 (US). GRU-BER, Joseph, Michael [US/US]; 9272 Shady Bend, Brownsburg, IN 46112 (US). JOHNSON, Douglas, Webb [US/US]; 235 Saddlebrook Court, Zionsville, IN 46077 (US). JUNGHEIM, Louis, Nickolaus [US/US]; 8218 Meadowbrook Dive, Indianapolis, IN 46240 (US). KROIN, Julian, Stanley [US/US]; 8418 Hilltop Drive, Indianapolis, IN 46234 (US). LANDER, Peter, Ambrose [US/US]; 5407 North Capitol Avenue, Indianapolis, IN 46208 (US). LIN, Ho-Shen [US/US]; 8128 Trevellian Way, Indianapolis, IN 46217 (US). LOHMAN, Mark, Christopher [US/US]; 1307 Baker Street, Apartment C,

Longmont, CO 80501 (US). MUEHL, Brian, Stephen [US/US]; 940 Country Lane, Indianapolis, IN 46217 (US). NORMAN, Bryan, Hurst [US/US]; 8648 Admirals Bay Drive, Indianapolis, IN 46236 (US). PATEL, Vinod, Francis [US/US]; 3 Mossy Lane, Bellows Farm, Acton, MA 01720 (US). RICHETT, Michael, Enrico [US/US]; 5832 Baron Court, Indianapolis, IN 46250 (US). THRASHER, Kenneth, Jeff [US/US]; 8660 Count Turf Court, Indianapolis, IN 46217 (US). VEPACHEDU, Sreenivasarao [IN/US]; 16 West 630/Mockingbird Lane, Apartment 20G, Hinsdale, IL 60521 (US). WHITE, Wesley, Todd [US/US]; 1434 Grobe Street, Indianapolis, IN 46227 (US). XIE, Yongging [CN/US]; 19 Huntington Circle, Apartment 15, Naperville, IL 60540 (US). YORK, Jeremy, Schulenburg [US/US]; 3592 North Tillotson Avenue, Number 87, Muncie, IN 47304 (US). PARKHURST, Brandon, Lee [US/US]; 144 Jonquill Drive, Indianapolis, IN 46227 (US).

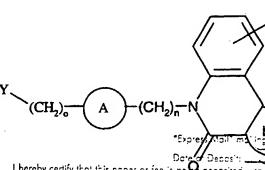
- gents: DAWALT, Elizabeth, A. et al.; Eli Lilly and Company, Lilly Corporate Center, Indianapolis, IN 46285 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

#### Published:

With international search report.

[Continued on next page]

(54) Title: METHODS AND COMPOUNDS FOR INHIBITING MRP1



(57) Abstract: The present invention further relates to a method of inhibiting MRP1 in a mammal which comprises administering to a mammal in need thereof an effective amount of a compound of formula (I).

I hereby certify that this paper or fee \*Excress Moil Post Office to Addressee" service under 37 C.F.R. 110 on

1, PO. Box 1453, Ale

anature of person mailing paper or fee

(Typed at Printed name of person mailing paper)

 Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.